

FINAL MEETING SUMMARY

**HANFORD ADVISORY BOARD
RIVER AND PLATEAU COMMITTEE**

September 22, 2015

Richland, WA

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This is only a summary of issues and actions discussed at this meeting. It may not represent the fullness of represented ideas or opinions, and it should not be used as a substitute for actual public involvement or public comment on any particular topic unless specifically identified as such.

Opening

Pam Larsen, River and Plateau Committee (RAP) chair, welcomed the committee and introductions were made. Committee members adopted the August 2015 RAP meeting summary.

**Consortium for Risk Evaluation with Stakeholder Participation Hanford Site-Wide Risk Review
Project Interim Progress Report (joint w/ Oregon Hanford Cleanup Board members)**

Presentation

David Kossan, Principle Investigator for the Consortium for Risk Evaluation with Stakeholder Participation (CRESP) Hanford Site-Wide Risk Review Project, opened his presentation by reminding RAP committee members that the CRESP Hanford Risk Review Project was separate and distinct from the recently released Omnibus Risk Review. David noted that he would not cover the Omnibus Risk Review within his presentation to RAP, and he highlighted that the Omnibus Risk Review was:

- Directed by the U.S. Congress in the Consolidated Appropriations Act, 2014 (H.R. 3547)
- Coordinated by CRESP, but executed by nationally recognized leaders with diverse expertise and experience
- Focused on several U.S. Department of Energy Office of Environmental Management (DOE-EM) sites, including Hanford, Savannah River, and Oak Ridge

David provided committee members with the background of the Hanford Site-Wide Risk Review project, placing emphasis on updates made to the interim report and the methodology following comments received in September 2014. David noted that the interim report was again open for public comment, and three documents- the (1) Hanford Risk Review Interim Report Progress Report, (2) Final Methodology, and (3) Overview of Revisions- were available for public review. David noted that the CRESP team is especially interested in hearing whether or not revisions to the interim report addressed comments received in 2014.

Key points from David's presentation¹ included:

- There are risks that are associated with delaying cleanup, and there are risks associated with cleaning up too early (e.g. before specific radionuclides have had the opportunity to decay). The Hanford Risk Review Project works to illustrate these risks so that the U.S. Department of Energy (DOE) can appropriately balance cleanup efforts.
- Major shifts in the methodology following comments gathered in 2014 include:
 - Clarification of Hanford Risk Review Project goals and objectives
 - A clearer distinction between "hazards" and "risks"
 - A greater focus on available data, thresholds, and metrics
 - A lesser focus on modeling
 - Cultural resources are summarized, but not rated
- The specific objectives for the Interim Report include (1) reviewing hazards and existing contamination and determining the potential for contaminants and cleanup to cause risk and (2) providing relative ratings of risk from hazards and contamination and identifying the most urgent risks to address. The Hanford Risk Review Project is not intended to:
 - Substitute or preempt legal cleanup requirements imposed under laws, treaties, or agreements
 - Analyze completed cleanup actions

Attachment 1: *The Hanford Site-Wide Risk Review Project Interim Report Overview* (CRESP presentation)

- Focus on risk management decisions
- Serve as a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) risk assessment nor as a Natural Resources Damage Assessment evaluation
- The Interim Report considers the Hanford Site as a whole, and it does not distinguish between the cleanup responsibilities of the U.S. Department of Energy—Richland Operations Office (DOE-RL) and the U.S. Department of Energy—Office of River Protection (DOE-ORP) nor the regulatory framework governing cleanup actions.
- The scope of the Interim Report covered all nine tank waste and tank farm Evaluation Units (EUs), all five groundwater EUs, three of nine Deactivation and Decommissioning EUs, four of twenty-one Legacy Source Site EUs, and four of sixteen Operating Facility EUs.
- The Hanford Risk Review discovered that Tunnel #1 at the Plutonium-Uranium Redox Extraction (PUREX) Facility was constructed almost entirely of railroad ties. The Interim Report identified a collapse of this tunnel as a potential risk. There is also the risk of fire or a major seismic event, which could potentially disperse hazardous materials.
- A 324 Building black cell liner leaked cesium-137 and strontium-90 in 1986. The soils below the 324 building are highly contaminated, and the largest risks that this contamination presents include water infiltration (likely from a water main rupture) and worker exposure during remediation.
 - The Interim Report does not recommend that cleanup of the 324 Building should not occur. The Interim Report recognizes that DOE-RL could implement interim mitigation measures to stop water migration and that contamination below the 324 Building poses a lower risk because it is not mobile.
 - The report does not measure community concerns as a part of risk; therefore, in practice, DOE-RL could increase the cleanup priority of 324 Building contamination to account for citizen concern.
- Groundwater at the Hanford Site is both a protected resource and a potential hazard, as it may transport contamination to the Columbia River. The Hanford Risk Review includes a groundwater threat metric, which quantifies contamination at the saturated zone at water quality standards.
- The threat that groundwater plumes pose to the Columbia River are calculated by taking into account existing treatment strategies, mobility, and rate of radioactive decay. Technetium-99 was determined to be one of the largest threats to groundwater.
- Observations included in the Interim Report that inform the potential sequencing of Hanford Site cleanup include:
 - Addressing select parts of specific EUs earlier.

- Basing the highest priority group on evaluation of potential risks to human health and the environment. These noted priorities include the reduction of threats posed by tank wastes (hydrogen gas generation, tank vapors), the reduction of risks associated with external events and natural phenomenon (seismic events, fires, extended loss of utilities), and the reduction of dependence on active controls.
- Considering the delay of certain cleanup actions where risk could potentially be mitigated by deferred cleanup.
- Addressing threats to groundwater.
- The Interim Report concluded that:
 - The highest risks during cleanup include risks to workers from potential operational accidents and risks to ecological and cultural resources from physical disruption or the introduction of invasive species.
 - The major risk remaining following cleanup is from the potential failure of institutional or engineered controls.
 - The safety of consumptive practices cannot be assured without appropriate risk assessment and biomonitoring.
 - At the Hanford Site boundary, members of the public currently have low to not-discernable risks.

David thanked the committee for their interest. He noted that CRESP is accepting comments on the Interim Report of the Hanford Risk Review until October 30, 2015, and he stated that comments received would be used to inform CRESP's Final Report. David also hinted at an upcoming facilitated DOE workshop that would allow the agency to gain broad public input on cleanup priorities. David noted that DOE-RL would release additional detail on this workshop as they were clarified.

Regulator Perspective

Emy Laija, U.S. Environmental Protection Agency (EPA), noted that the identification of the risks associated with the PUREX tunnels was helpful to EPA.

Committee Questions and Responses ²

Note: This section reflects individual questions, comments, and agency responses, as well as a synthesis where there were similar questions or comments.

Q. What has CRESP learned so far that suggests increased emphasis for specific aspects of the Hanford Site?

Attachment 2: Transcribed flipchart notes

R. [CRESP] The data included within the Hanford Risk Review Project have demonstrated several interesting conclusions thus far, including the idea that tanks and tank farms should be considered differently (as risks and hazards are not uniformly distributed within tank waste), that the greatest untreated groundwater threat on site is in the Central Plateau East area, and that mercury hazards (especially mercury vapor) require more thorough study. The study also suggested increased emphasis on the PUREX Facility, especially on waste buried in surrounding timber-lined tunnels.

Q. What are the goals of the Hanford Risk Review Project?

R. [CRESP] The goal of the Hanford Risk Review Project is to detail the risks at the Hanford Site and highlight the impacts that they pose to human health and the environment. The results of the study are intended to provide DOE, regulators, tribal nations, and other stakeholders with a greater understanding of the remaining cleanup at the Hanford Site. This understanding may help to inform decisions relating to sequencing future cleanup activities and identifying areas at the Hanford Site that may require characterization, analysis, and remediation in the near-term.

Q. The CRESP report mentions the gravel cover over the 618-11 vertical pipe units (VPU) could be covered with an additional cap, since DOE-RL is not likely to remediate the VPUs in the near-term. What is the rationale for suggesting this additional cover?

R. [CRESP] Gravel covers encourage water infiltration. The goal of a cover is to keep water out while maintaining a level of exchange to account for changes in barometric pressure. An additional cover would likely allow for lower infiltration while maintaining exchange.

Q. Are the raw data from the CRESP reports available to members of the public?

R. [CRESP] All of the information incorporated into the report is available in the provided appendices in several formats to ensure that it is accessible. However, direct raw data are not available at this time. If members of the public are interested in these data, CRESP can discuss the possibility with the Tri-Party Agreement (TPA) agencies. DOE is waiting to see how stakeholders view the utility of the CRESP Hanford Risk Review before moving forward with additional work.

Q. The CRESP Omnibus Report seems to make several pitches for revising the definition of high-level waste (HLW) to risk-based as opposed to the current definition that is politically-based. From a policy perspective, this change in definition would make high-risk waste easier to prioritize. Can the CRESP team encourage congress to change the current definition?

R. [CRESP] This question would be more appropriate for the Omnibus Risk Review team, headed by Michael Greenberg of Rutgers University.

Q. It appears as though the CRESP evaluation of human health risk is based on dose, not on risk. How was this metric conceptualized in the report?

R. [CRESP] The metric demonstrates the unmitigated doses that may be received in exposure scenarios. The team assumed how likely it was that these events would occur and then worked to quantify the risk that an exposure harm (e.g. cancer) would happen. This information was input into an equation to calculate a risk metric, and the report provides groupings of Hanford Site cleanup efforts that may need to be addressed more urgently based on this metric. The process for development of this measure can be found in the methodology document chapter 4 (pp. 60-68) and chapter 5 (pp. 79 – 86).

Q. How do the risks presented by the VPUs and caissons in the SW2 burial grounds compare to the VPUs in 618-10 and 618-11?

R. [CRESP] The Hanford Risk Review does not speak to the SW-2 burial grounds, as they were not a part of the original EU grouping that the CRESP team looked into. The Initial Risk Review does not speak to most of the legacy sites.

Q. The Initial Risk Review appears to include cleanup sites at Hanford very selectively. The PUREX tunnels were included; however, cleanup for this area has not yet been negotiated. How did the report choose which sites to focus on?

R. [CRESP] The Initial Risk Review focused on approximately half of the remaining cleanup at the Hanford Site. The CRESP team asked DOE to recommend areas of the site that should be incorporated into this initial analysis. If TPA agencies and the community respond favorably to the Initial Risk Review, then CRESP may examine remaining EUs following the same methodology.

C. There is not adequate characterization for many sites with Hanford's 200 Area. This is an important component of Hanford Site risk.

R. [CRESP] A facet of future examinations, especially looking at Central Plateau burial grounds, will be to identify major gaps in waste characterization.

Q. Who is weighting in on and selecting site evaluations? Is selection driven by local DOE offices or is it driven by DOE headquarters? Many members of the Hanford Advisory Board (HAB or Board) believe that it is very important for CRESP to focus on speaking to local project managers.

R. [CRESP] The CRESP team has been talking with local DOE-RL and DOE-ORP managers as well as the contractors and other TPA agency officials. It is important that this study taps into the localized information that is available. CRESP believes that the Hanford Risk Review is a unique effort, and, as such, it is important that an examination of data is holistic.

Q. How did the Hanford Risk Review incorporate updated information relating to seismic activities?

R. [CRESP] Available seismic information for the Hanford Site evolved as the CRESP review was conducted. The appendices highlight these evolving seismic discussions. The report works to define disconnects between existing building standards and current seismic vulnerabilities.

Q. Can CRESP provide HAB members with the reference to studies on the 324 Building included within the report?

R. [CRESP] There is a discussion of the 324 Building that includes all references in Appendix F.2.

Q. The presentation noted that infiltration rates are anticipated to be approximately 10 mm/year on the Central Plateau. However, the Central Plateau should be considered disturbed land, which would place infiltration rates around 50 mm/year.

R. [CRESP] The report presents a discussion of infiltration rates for disturbed land, undisturbed land, and special cases (e.g. gravel covers). The presentation noted less than 10 mm/year of infiltration for areas that were covered with soil and then vegetated to intentionally limit infiltration. The presentation contrasted this with gravel covers that facilitate a much higher level of infiltration.

Q. The presentation noted that the safety of consumptive practices cannot be assured without appropriate risk assessment and biomonitoring. Unless a risk assessment for human health is completed, then no informed decision can be made to safely proceed.

R. [CRESP] The presentation and the Interim Risk Report note that a risk assessment is not sufficient on its own. CRESP also believes that a human health risk assessment is important.

Q. The presentation recognized that neither the 324 Building nor the 618-11 VPUs pose high levels of risk. Did the Interim Risk Report consider the potential for catastrophic flood events?

R. [CRESP] The Interim Risk Report did consider the potential for extreme flood events. The Report is not advocating for no cleanup work at the 324 Building and at 618-11; it advocated for interim measures and it advocated for mindfulness around of when and how these sites are remediated.

Q. The presentation noted that DOE will provide a facilitated workshop to gain broader input on cleanup priorities. What will this look like?

R. [CRESP] DOE will need to provide the Board with additional details. The goal of the workshop will be to gain input on cleanup priorities from stakeholders. The facilitated workshop will be specific to the Hanford Site and it will focus beyond the scope of the Interim Risk Report.

Q. If the Hanford Risk Review continues to examine the remainder of Hanford Site EUs, what will happen if examination suggests that several different sites need to be cleaned up immediately?

C. This would likely be a budgeting question for DOE.

The committee thanked David for the information and for his responses, and RAP committee members turned their attention to discussing next steps for the committee on the Hanford Site-Wide Risk Review and the Omnibus Risk Review. Board leadership noted that the HAB provides DOE with guidance, and that the Board would be unable to advise members of the U.S. Congress on the Omnibus Risk Review.

The committee discussed the potential for providing advice on the Hanford Risk Review and future CRESP efforts. Questions and comments posed by RAP members included:

C. Could the HAB encourage that a comprehensive characterization effort occur before any cleanup priorities are made?

R. The Hanford Site needs to show cleanup success in order to continue receiving money. Therefore, cleanup cannot be halted in order for holistic characterization to occur.

R. Prioritization without comprehensive characterization is not a good strategy.

R. It may be important for the Hanford Risk Review effort to continue so that DOE and the other TPA agencies have the full picture as cleanup prioritization occurs under increasingly constrained cleanup budgets. The Board is in a position to encourage momentum and advocate for a stronger vision for cleanup.

C. The Board could provide advice to DOE recommending strategies for formatting the facilitated workshop. The Board could also advise DOE on how the TPA agencies can use information received at the workshop.

The committee decided to conduct additional review of information provided by CRESP. RAP members would consider this information in the coming months and decide whether or not the Board should author advice or a letter on the topic.

Response to Advice #283 – Central Plateau Inner Area Guidelines

RAP members reviewed the recently received TPA agency response to HAB Advice #283³, Central Plateau Inner Area Guidelines. Members considered whether the Board needed to provide additional clarification or follow up to agencies.

Committee Questions and Responses

Note: This section reflects individual questions, comments, and agency responses, as well as a synthesis where there were similar questions or comments.

Response to Advice Point 1

C. The agencies did not clarify industrial use. Will the Central Plateau be open for commercial industrial use? The agency response did not make this clear. DOE considers the Comprehensive Land Use Plan (CLUP), and that document notes additional land uses beyond industrial that could be considered.

R. [EPA] Industrial use could potentially include commercial use. The CLUP is a DOE document and regulatory agencies do not view it as a decision-making document for the Hanford Site. Industrial land use is a term used under the CERCLA, and it denotes a use that is separate from

Attachment 3: Tri-Party Agreement Agency Response to HAB Advice #283, Central Plateau Inner Area Guidelines

residential use. CERCLA guidance documents present additional information on the definition of industrial use.

Response to Advice Point 3

Q. The agencies do not answer whether or not DOE-RL will use an analogous site approach in the Central Plateau Inner Area. Should the HAB respond to this point and stress that the Board does not approve of an analogous site approach?

R. [EPA] DOE is proposing to do more characterization in the Inner Area than was done in the River Corridor. An analogous waste site approach may make sense in some cases; the response works to convey that all of the TPA agencies would need to agree on an analogous approach before it could be implemented. EPA does not want to see waste characterization occur post-record of decision (ROD).

C. It is important that DOE cleanup Central Plateau sites using the strategies that make the most sense. It is also important that the process is open and that the Board has the opportunity to discuss cleanup approaches with TPA agencies prior to final determination.

Response to Advice Point 4.

Q. Do committee members believe that the TPA agencies will consider the Board's Central Plateau Remedial Action Values Flowchart (Advice #173 and Advice #174) and the Groundwater Values Flowchart (Advice #197) as Central Plateau cleanup moves forward?

C. Yes. The agencies have referred to these documents in the past.

Response to Advice Point 6

Q. Do the TPA agencies have access to the rooting depth information that the HAB used when crafting this advice point? The reference was stripped out of the final draft, as the Board felt that it was too wordy.

R. [EPA] Yes, the TPA agencies do have access to this information. Cleanup decisions will consider rooting depth information in conjunction with soil type and waste composition.

Response to Advice Point 7

Q. The Board needs to come back to the TPA agencies and clearly note that the point of compliance for groundwater in Central Plateau cleanup needs to be at the edge of individual waste sites as opposed to the boundary of the Inner Area.

C. The response notes that the regulatory agencies "have not agreed with an alternative point of compliance for groundwater." The proof that DOE is addressing the Board's concerns about a point of compliance will be demonstrated by the response of the regulatory agencies.

R. [EPA] If an evaluation is done by DOE, the regulatory agencies will review these data. At the moment, EPA is unsure which document DOE will include this evaluation within. It would

happen before the ROD and it will likely come forward in Draft A of the Remedial Investigation/Feasibility Study.

C. The decision to pursue an alternative point of compliance for groundwater already exists in the SW-2 Work Plan. DOE is currently setting up the documents so that the agency has leeway in choosing a point of compliance.

C. DOE appears to be moving forward with this strategy. It is the regulatory agencies that will have to accept the possibility of an alternative point of compliance. The Board needs to continue to look for ways that it can weigh-in on this ongoing process.

C. The Board could provide input on drafts of the Central Plateau work plans. The HAB has done this on past Draft A work plan documents through committee discussion.

Response to Advice Point 14

Q. The response states that DOE will not protect sagebrush-steppe habitat to the extent that the Board advised. Should the Board push back on this or request additional clarification?

R. [EPA] Land that is included within the Inner Area will not necessarily be developed or disturbed. That is an assumption that appears to be made. Every piece of land that DOE transfers or leases to another group under the industrial land use classification will have to be valued. There are two different issues: (1) how the Inner Area is defined on a map and (2) how Inner Area land will be developed in the future.

C. The Board needs to push back and note that the undisturbed land should be excluded from the footprint. Otherwise it will be categorized as industrial use and it will be opened up to the possibility of future development.

C. There is probably little interest to develop this land. However, the potential for development does exist and this conversation is one that should continue.

The committee concluded discussion on the TPA response to HAB Advice #283 and decided that no immediate committee action was needed. RAP members noted that they would continue to track work plans and other documents relating to Central Plateau cleanup as DOE-RL authors them.

Update on Waste Encapsulation Storage Facility

Agency Presentation

Julie Reddick, DOE-RL, provided committee members with a background and a potential path forward for cesium and strontium capsules currently stored at the Waste Encapsulation and Storage Facility (WESF). Highlights from Julie's presentation⁴ included:

- DOE removed cesium and strontium from underground waste tanks in the 1970's to reduce the amount of heat generated by tanks and to provide cesium and strontium for commercial applications. In the following years, DOE encapsulated cesium and strontium in double-walled stainless steel capsules.
- Hot cells at WESF provided shielding and processing equipment that allowed workers to handle radioactive cesium and strontium.
- WESF was placed into surveillance mode in 1985. Nearly 2,000 capsules (1,335 cesium capsules and 601 strontium capsules) were placed into storage in Pool Cells within WESF.
- Approximately 1/3 of all cesium and strontium on-site are stored at WESF; there are approximately 100 million curies stored within the facility.
- The WESF Stabilization and Ventilation Project is ongoing. The purpose of this effort is to replace an existing exhaust ventilation system and to stabilize legacy contamination to prevent releases of contaminants to the environment. The Stabilization and Ventilation project will grout all but one of the WESF hot cells.
- The WESF facility is not designed to hold cesium and strontium capsules indefinitely. Preparations are ongoing for moving WESF capsules into dry storage at a new facility. This move will reduce risk, and it is consistent with past HAB advice.
- DOE-RL is currently participating in the U.S. Department of Energy Office of Nuclear Energy's (DOE-NE) Deep Borehole Feasibility study.
 - Cesium and strontium capsules are one of three waste types that DOE-NE is considering for deep borehole deposition.
 - DOE-NE expects to receive proposals to drill a characterization borehole in Fiscal Year 2016, and the DOE-EM is planning to develop a small-diameter universal canister for deep borehole or mined repository deposition.
 - DOE-RL will work with DOE-NE to establish canister specifications and other parameters for disposal as the Deep Borehole Feasibility Study progresses.

Attachment 4: Waste Encapsulation and Storage Facility Capsules (DOE-RL presentation)

Regulator Perspective

Stephanie Schleif, Washington Department of Ecology (Ecology), thanked Julie for highlighting DOE-RL's proposed strategy for moving WESF capsules to dry storage and for disposing of cesium and strontium waste. Stephanie recognized that WESF is a permitted storage facility that currently falls under Hanford's Dangerous Waste Permit Rev. 8C, and she noted that DOE-RL's submitted closure plan for decommissioning WESF hot cells A-F was deemed incomplete by Ecology in fall 2014. She stated that Ecology and DOE-RL are working to resolve the issues and continue with the required permit modifications.

Stephanie also noted that a dry storage facility for cesium and strontium capsules will need to be permitted under either Rev. 8C or Rev. 9 of the Hanford Dangerous Waste Permit.

Committee Questions and Responses

Note: This section reflects individual questions, comments, and agency responses, as well as a synthesis where there were similar questions or comments.

Q. How will the interim strategy of casting the cesium and strontium capsules work?

R. [CHPRC] Nuclear energy plants across the nation currently use dry cask storage strategies. DOE-RL and contractors recently toured Energy Northwest's storage facility to learn more about the techniques that are used there. CHPRC is organizing a value engineering meeting to look at extended storage options.

Q. The Yucca Mountain Nuclear Waste Repository has a small percentage of space that was allocated for DOE and U.S. Department of Defense waste. Was there any space that was set aside for these capsules from the Hanford Site?

R. [DOE-RL] The Tank Farm Closure and Waste Management Environmental Impact Statement placed the materials within the capsules to be processed at the Waste Treatment and Immobilization plant. There was an extended dry storage case that was analyzed; however, it was not a part of the final decision. The TPA notes that Ecology and DOE would consider Yucca Mountain as a potential option for deposition, but the Yucca Mountain Nuclear Waste Repository does not currently exist.

Q. Has DOE-RL taken any steps to look into concrete damage within the pool?

R. [DOE-RL] There have been several studies that have been done on the structural integrity of the concrete. There is enough information to assure DOE-RL that the concrete integrity is sound for the time being. There is another study that is currently ongoing; the findings of this study will provide additional detail relating to the life of WESF.

Q. Does DOE-RL plan to grout the concrete pools?

R. [DOE-RL] No. The current plan only involves grouting the hot cells. The hot cells have some legacy contamination within them that DOE-RL would like to immobilize.

Q. Does DOE-RL need the hot cells to process the cesium and strontium capsules to get them into dry storage?

R. [DOE-RL] The conceptual designs for moving the capsules to dry storage do not use the hot cells, as there would not be any opening of the capsules. In several concepts, DOE-RL will take the whole capsule and place it into a new container. If needed, one WESF hot cell would remain open if DOE-RL follows the existing Stabilization and Ventilation Plan.

Q. If DOE-RL placed cesium and strontium capsules in appropriate storage containers, could the capsules be stored at the Canister Storage Building (CSB)?

R. [DOE-RL] There may not be capacity at the CSB. The concept that DOE-RL currently has would place these capsules on a pad that is very similar to those present at the CSB.

R. [Ecology] The capsules will need to go to a permitted facility. This means that DOE-RL will need to work with Ecology to permit the storage. DOE-RL and Ecology have not yet discussed the possibility of borehole deposition. There is a permitting plan for the regulatory path forward, and boreholes are not currently included in this plan.

Q. What is the general process for moving these capsules into dry storage? What is the general timeframe?

R. [CHPRC] The capsules will need to be removed from pool cells, and heat loads will need to be calculated to inform a dry-loading plan. There will need to be a process for transferring and overpacking the capsules into an inner container. This endeavor will likely take five-years or more.

R. [DOE-RL] The general timeframe for the process overall is four to sixteen years.

Q. How long can the capsules sit in dry storage before they need to be overpacked again? Is the idea that DOE-RL and Ecology would work to permit the dry casks permitted for disposal and then work to permit them for storage in the interim?

R. [DOE-RL] The design life for dry packing capsules would be well over 100 years. Whatever is done with the capsules within the next five to ten years would be considered an interim storage effort.

Q. What is the timeline for borehole deposition?

R. [DOE-RL] A specific timeline is not yet available. There are proposals that are currently incoming for test boreholes. These will have non-radioactive materials placed within them. The location of borehole testing and siting has not yet been determined. From a practical standpoint, DOE-RL wants to ensure that interim packaging for capsules can work with potential borehole deposition strategies.

Q. How deep are the proposed waste deposition boreholes?

R. [DOE-RL] Nearly three miles.

Committee members thanked Julie and Stephanie for their presentation and responses. The committee is interested in considering the WESF facility in the coming fiscal year, and they requested an update on interim storage and deposition strategies as new information relating to processing and permitting capsules becomes available.

Committee Business

*RAP 3-Month Work Plan*²⁵

The RAP committee planned to meet for a Hanford Site tour in October 2015 that would tentatively include stops at the 300 Area (and the 324 Building mock-up), the 618-10 mock-up, the K-Basin sludge annex, and the 200 West Uranium Pump and Treat Facility. In either November or December 2015 (depending on agency availability), RAP will tentatively meet to:

- Receive a briefing on and discuss the 100 D/H Proposed Plan
- Receive a briefing on the WA-1 Work Plan
- Discuss potential follow-up needs to the CRESP Interim Hanford Risk Review
- Receive a briefing on and discuss the proposed changes to TPA milestone series M-015, M-016, M-085, M-037 (the Central Plateau change packages)

Committee members coordinated with DOE-RL and regulators to identify topics for discussion at future RAP meetings, including discussion on the transition of the Plutonium Finishing Plant to EPA.

Jean Vanni noted that RAP should look into the Work Plans for the Orchard Lands and for 200-PW-1, 3, and 6 at future committee meetings. As the topics are not currently included on the FY 2016 Work Plan, Jean will work with the committee leadership to propose the addition at an upcoming meeting.

Attachment 2: Transcribed flipchart notes

Attachment 5: RAP Committee 3-Month Work Plan

Attachments

Attachment 1: *The Hanford Site-Wide Risk Review Project* Interim Report Overview (CRESP presentation)

Attachment 2: Transcribed flipchart notes

Attachment 3: Tri-Party Agreement Agency Response to HAB Advice #283, Central Plateau Inner Area Guidelines

Attachment 4: Waste Encapsulation and Storage Facility Capsules (DOE-RL presentation)

Attachment 5: RAP Committee 3-Month Work Plan

Attendees

Board members and alternates:

Jan Catrell	Liz Mattson	Richard Smith
Shelley Cimon	Kristin McNall (phone)	Bob Suyama
Gary Garnant	Emmett Moore	Gene Van Liew
Rebecca Holland	Ken Niles (phone)	Jean Vanni (phone)
Steve Hudson (phone)	Ed Revell	
Pam Larsen	Mecal Seppalainen (phone)	

Others:

Joni Grindstaff, DOE-ORP	Emy Laija, EPA	Bruce Ford, CHPRC
Yvonne Levardi, DOE-ORP	Stephanie Schleif, Ecology	Marie Gillespie, CHPRC
Steve Pfaff, DOE-ORP	Robin Varljen, Ecology	Dale McKenney, CHPRC
Al Farabee, DOE- RL	Tom Rodgers, WDOH	Kurt Workman, CHPRC
Julie Reddick, DOE-RL	Ginger Wireman, Ecology	David Kossan, CRESP (phone)
Kris Skopeck, DOE-RL		Charles Powers, CRESP (phone)
Ben Vannah, DOE-RL		Jennifer Salisbury, CRESP (phone)
		Ryan Orth, EnviroIssues
		Brett Watson, EnviroIssues
		Jen Copeland, MSA
		Jennifer Colborn, MSA
		Sharon Braswell, North Wind/DOE-ORP
		Matt Lawyer, ODOE
		Mark Freshley, PNNL
		Kelsey Shonk, SN3
		Annette Cary, Tri-City Herald
		Pedro de la Torre III, Student